

Appl. No. 10/814,160
REPLACEMENT SHEET

31/11
1/1
ggc gct ccc tcc gct ggg gtt cgt cac tgg cgc cgg gat ttg gcc gcc gcg ggg
G A A P L S A G V R H W A R D L A A A G
91/31
61/21
ctc cgg agc cgc tcc ctc ccc aca cgg ctc acg atg cgc ggc gac agg gcc ggg ggc
L R S R S L P T R L T M R G D R A G G G
151/51
121/41
ccc gtg ctc cag ttc act aac tgc cgg atc ctg cgc gga ggg aaa ctg ctc agg gag gat
P V L Q F T N C R I L R G G K L L R E D
211/71
181/61
ctg tgg gtg cgc gga ggc cgc atc ttg gac cca gag aag ctg ttc ttt gag gag cgg cgc
L W V R G G R I L D P E K L F F E E R R
271/91
241/81
gtg gcc gag cgg cgg gac tgc ggg ggc cgc atc ttg gct ccc gga ttc atc gac gtg
V A D E R R D C G G R I L A P G F I D V
331/111
301/101
cag atc aac cgt gga TTT GGT GTT GAC TTC TCT CAA GCC ACG GAG GAC GTG GGT TCG GGG
Q I N R G F G V D F S Q A T E D V G S G
391/131
361/121
GTT GCC CTC GTG GCC CGG AGG ATC CTG TCG CAC GGC GTC ACC TCC TTC TGC CCC ACC CTG
V A L V A R R I L S H G V T S F C P T L
451/151
421/141
GTC ACT TCC CCA CCG GAG GCT TAT CAC AAG GTT GTT CCT CAG ATC CCT GTG AAG AGT GGT
V T S P P E A Y H K V V P Q I P V K S G
511/171
481/161
GGT CCC CAT GGG GCA GGG GTC CTC GGG CTG CAC CTG GAG GGC CCC TTC ATC ACG CGG GAG
G P H G A G V L G L H L E G P F I S R E
541/181
571/191
AAG CGG GGC GCG CAC CCC GAG GCC CAC CTC CGC TCC TTC GAG GCC GAT GCC TTC CAG GAC
K R G A H P E A H L R S F E A D A F Q D
601/201
631/211
TTG CTG GCC ACC TAC GGG CCC CTG GAC AAT GTC CGC ATC GTG ACG CTG CCC CCA GAG TTG
L L A T Y G P L D N V R I V T L A P E L
661/221
691/231
GGC CGT AGC CAC GAA GTG ATC CGG GCG CTG ACG GCC CGT GGC ATC TGC GTG TCC CTA GGG
G R S H E V I R A L T A R G I C V S L G
721/241
751/251
CAC TCA GTG GCT GAC CTG CGG GCG GCA GAG GAT GCT GTG TGG AGC GGA GCC ACC TTC ATC
H S V A D L R A A E D A V W S G A T F I
781/261
811/271
ACC CAC CTC TTC AAC GCC ATG CTG CCT TTC CAC CAC CGC GAC CCA GGC ATC GTG GGG CTC
T H L F N A M L P F H H R D P G I V G L

Fig. 3. (a)

Appl. No. 10/814,160
REPLACEMENT SHEET

841/281 871/291
CTG ACC AGC GAC CGG CTG CCC GCA GGC CGC TGC ATC TTC TAT GGG ATG ATT GCA GAT GGC
L T S D R L P A G R C I F Y G M I A D G
901/301 931/311
ACG CAC ACC AAC CCC GGC GCC CTG CGG ATC GCC CAC CGT GCC CAT CCC CAG GGG CTG GTG
T H T N P A A L R I A H R A H P Q G L V
961/321 991/331
CTG GTC ACC GAT GGC ATC CCT GCC TTG GGC CTG GGC AAC GGC CGG CAC ACG CTG GCA CAG
L V T D A I P A I G L G N G R H T L G Q
1021/341 1051/351
CAG GAA GTG GAA GTG GAC GGT CTG ACG GGC TAC GTG GCA GGT GAG CGC CCT GAC CCA CTG
Q E V E V D G L T A Y V A G E R P D P L
1081/361 1111/371
GGT CCC AGG TCC CAG CCC GCA TGC CAG GTG GCC CAC GAC CCC AGA GGC TGC CCT CTC
G P R S Q P A C Q V A H D P P R A C P L
1141/381 1171/391
TGC TCT CAA GGC ACC AAG ACG CTG AGT GGC AGC ATA GCC CCA ATG AAC GTC TGT GTC CGG
C S Q G T K T L S G S I A P M N V C V R
1201/401 1231/411
CAC TTC CTG CAG GGC ACA GGC TGC AGC ATG GAG TCG GCC CTG GAG GGT GCA TCC CTG CAC
H F L Q A T G C S M E S A L E A A S L H
1261/421 1291/431
CCC GGC CAG TTG CTG GGG CTG GAG AAG AGT AAG GGG ACC CTG GAC TTT GGT GCT GAC GCA
P A Q L L G I E K S K G T L D F G A D A
1321/441 1351/451
GAC TTC GTG GTG CTC GAC GAC TCC CTT CAC GTC CAG GCC ACC TAC ATC TCG GGT GAG CTG
D F V V L D D S L H V Q A T Y I S G E L
1381/461 1411
GTC TGG CAG GCG GAC GCA GGT AGG CAG TGA CAA GGA CCT CGG CTG AGA GGA CAC CTG GGC
V W Q A D A A R Q
1441 1471
GCA GCG GGA TGC CAT CAG GGC CGG GTG GTT GGG GAG CTG GTC TCC AGG GAG TGA GTC GGC
1501
AGC CCT GCT GGA T

Fig. 3 (b)

Appl. No. 10/814,160
REPLACEMENT SHEET

cloned	1	- - - - -
deduced	1	M F A R S A G L C F P W Y P G Y S H G Q D A E E Y L A Q H P T P T
cloned	1	- - - - -
deduced	34	G R G A E R R P R P P D S S A E G D P Q M L K P C G C Y P S P Q K
cloned	1	- - - - -
deduced	67	Y A L K Y G A P F C T C G C F Q R F H L P K A C P G Q Q G S P E S
cloned	1	- - - - -
deduced	100	A R P R N R Q P Y A T O N G P A P R P Q Y L P G S S S R C C H G Y
cloned	1	- - - - -
deduced	133	I C F L F D S S O T A E Y E Y G W Q Q D T G S Q L R P L L R G A Y
cloned	1	- - - - -
deduced	166	Y N S R M Y D S Q K E D S K P D I L R L Q N T Q L F H S Y S L S T
cloned	1	- - - - -
deduced	199	D G T O Y S P G A H Y C S P T G A G C P R P C A D T P G P Q P Q P
cloned	1	- - - - -
deduced	232	M D L R Y G Q R P P Y E P P P E P T L L A L Q R P Q R L H H H L F
cloned	1	- - - - -
deduced	265	L A G L Q Q Q R S Y E P M A Y K M E L P A C G A T L S L Y P S L P
cloned	1	- - - - -
deduced	298	A F S I P R H Q S Q S S T P C P F L Q C R P C P Q L S M D T P M P

Fig. 7 (a)

Appl. No. 10/814,160
REPLACEMENT SHEET

cloned	1	- - - - -
deduced	331	E L Q Y G P Q E Q E L R Q L L H K D K S K R S K E Y A T P A Q P S
cloned	1	- - - - -
deduced	364	P T S O Y P A A A C Y A C A Y A S S Y Y K Q K L A E Y I L K K Q Q
cloned	1	- - - - -
deduced	397	A A L E R T Y H P N S P G I P Y R S Q G P C S G Q C P C S Y P T P
cloned	1	- - - - -
deduced	430	L K Q P W H S F C R T L E P L E T E G A T R S M L S S F L P P Y P
cloned	1	- - - - -
deduced	463	S L P S D P P E H F P L R K T Y S E P N L K L R Y K P K K S L E R
cloned	1	- - - - -
deduced	496	R K N P L L R K E S A P P S L R R R P A E T L G D S S P S S S S T
cloned	1	- - - - -
deduced	529	P A S G C S S P N D S E H G P N P I L G S E A L L G Q R L R L Q E
cloned	1	- - - - -
deduced	562	T S Y A P F A L P T Y S L L P A I T L G L P A P A R A D S D R R T
cloned	1	- - - - -
deduced	595	H P T L G P R G P I L G S P H T P L F L P H G L E P E A G G T L P
cloned	1	- - - - -
deduced	628	S R L Q P I L L L D P S G S H A P L L T Y P G L G P L P F H F A Q

Fig. 7 (b)

Appl. No. 10/814,160
REPLACEMENT SHEET

cloned	1	- - - - -
deduced	661	S L M T T E R L S G S G L H W P L S R T R S E P L P P S A T A P P
cloned	1	- - - - -
deduced	694	P P G P M Q P R L E O L K T H Y O Y I K R S A K P S E K P R L R O
cloned	25	I P S A E D L E T D Q G G G P G Q Y Y D D G L E H R E L G H G O P E
deduced	727	I P S A E D L E T D Q G G G P G Q Y Y D D G L E H R E L G H G O P E
cloned	58	A R G P A P L Q O H P Q Y L L W E Q Q R L A G R L P R Q S T G D T
deduced	760	A R G P A P L Q O H P Q Y L L W E Q Q R L A G R L P R Q S T G D T
cloned	91	Y L L P L A Q G G H R P L S R A Q S S P A A P A S L S A P E P A S
deduced	793	Y L L P L A Q G G H R P L S R A Q S S P A A P A S L S A P E P A S
cloned	124	Q A R Y L S S S E T P A R T L P F T T G L I Y D S Y M L K H Q C S
deduced	826	Q A R Y L S S S E T P A R T L P F T T G L I Y D S Y M L K H Q C S
cloned	157	C G D N S R H P E H A G R I Q S I W S R L Q E R G L R S Q C E C L
deduced	859	C G D N S R H P E H A G R I Q S I W S R L Q E R G L R S Q C E C L
cloned	190	R G R K A S L E E L Q S Y H S E R H Y L L Y G T N P L S R L K L D
deduced	892	R G R K A S L E E L Q S Y H S E R H Y L L Y G T N P L S R L K L D

Fig. 7 (c)

Appl. No. 10/814,160
REPLACEMENT SHEET

cloned	223	NGKLAGLLAQRMFYMLPCGGYG-----
deduced	925	NGKLAGLLAQRMFYMLPCGGYGPLATLSAFLAS
cloned	245	-----
deduced	958	LAPTYPQGLSRYSWGLKPPPGPNPKSRPAPCPW
cloned	245	-----
deduced	991	GPGRGYGTTPLGPSCYKPWMMRALTLAPOVDT
cloned	248	DTIWNELHS SNAARWAAGSYTDLAFKYASRELK
deduced	1024	DTIWNELHS SNAARWAAGSYTDLAFKYASRELK
cloned	281	NGFAYYRPPGHHADHSTAMGFCFFNSYAIACRQ
deduced	1057	NGFAYYRPPGHHADHSTAMGFCFFNSYAIACRQ
cloned	314	LQQSKASKILYYDWDYHHGNGTQQTFYQDPSY
deduced	1090	LQQSKASKILYYDWDYHHGNGTQQTFYQDPSY
cloned	347	LYISLHRHDDGNFFPGSGAYDEYGAGSGEGFNY
deduced	1123	LYISLHRHDDGNFFPGSGAYDEYGAGSGEGFNY
cloned	380	NYAWAGGLDPPEYLAAFRIYYMPIAREFS
deduced	1156	NYAWAGGLDPPEYLAAFRIYYMPIAREFS

Fig. 7 (d)

Appl. No. 10/814,160
REPLACEMENT SHEET

cloned	410	P D L Y L Y S A G F D A A E G H P A P L G G Y H Y S A K C F G Y M
deduced	1189	P D L Y L Y S A G F D A A E G H P A P L G G Y H Y S A K C F G Y M
cloned	446	T Q Q L M N L A G G A Y Y L A L E G G H D L T A I C D A S E A C Y
deduced	1222	T Q Q L M N L A G G A Y Y L A L E G G H D L T A I C D A S E A C Y
cloned	479	A A L L G N R Y D P L S E E G W K Q K P H L N S I R S L E A V I R
deduced	1255	A A L L G N R Y D P L S E E G W K Q K P H L N A I R S L E A V I R
cloned	512	Y H S .
deduced	1288	Y H S K C G D G T L A E L R L K D L Q G T L P H R G Q I L G F R C
cloned	515	. .
deduced	1321	Q P G D L L L Y W S K I P Y S D P G S N G E H P P Y R G Y P L S P
cloned	515	. .
deduced	1354	P D G A S R A Y Q T Y A P O G K Y W G C M Q R L A S C P D S W Y P
cloned	533	R Y P G A D K E E Y E A Y T A L A S L S Y G I L A E D R P S E O L
deduced	1387	R Y P G A D K E E Y E A Y T A L A S L S Y G I L A E D R P S E O L
cloned	566	Y E E E E P M N L
deduced	1420	Y E E E E P M N L

Fig. 7 (e)

Appl. No. 10/814,160
REPLACEMENT SHEET

879 LQERGLRSQCECLRGRKASLEELQSVHSERHVLLYGTNPLSRLKLDNGKL 928
| | | | : | | : | | | | : | | | | | : | | | | : | | | : ||
689 LQETGLRGKCECIRGRKATLEELQTVHS2AHTLLYGTNPLNRQKLDSSKKL 738

929 AGLLAQRMFVMLPCGGVGPLATLSAFLASLAPTVQQLSRVSWGLKPPPG 978
| | | : | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
739 LGSLAS.VFVRLPCGGVG..... 755

979 PNPKSRPAPCPWGPGRGVGTTPLGPGSCVKPWMMRALTLAPQVDTDTIWN 1028
| | : | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
756 VDSDTIWN 763

1029 ELHSSNAARWAAGSVTDLAFKVASRELKNGFAVVRPPGHADHSTAMGFC 1078
| : | | : | | : | | : | | | | | | | | | | | | | | | | | | | | | | | | |
764 EVHSAGAARLAVGCVELVFKVATGELKNGFAVVRPPGHAEESTPMGFC 813

1079 FFNSVAIAACRQLQQQSASKILIVDWDVHHGNGTQQTFYQDPSVLYISLH 1128
: | | | | : | : | | | | : | | | | | | | | | | | | | | | | | | | | | | | |
814 YFNSVAVAALKLQQQLSVSKILEIVDWDVHHGNGTQQAFYSDPSVLYMSLH 863

1129 RHDDGNFFPGSGAVDEVGAGSGEGFNVNVAWAGGLDPPMGDPEYLAAFRI 1178
| : | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
864 RYDDGNFFPGSGAPDEVGTGPVGFNVNMAFTGGLDPPMGDAEYLAAFRT 913

1179 VVMPPIAREFSPDLVLVSAGFDAAEGHPAPLGGYHVSAKCFGYMTQQLMNL 1228
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
914 VVMPPIASEFAPDVVLVSSGFDAVEGHPTPLGGYNLSARCFGYLTQQLMGL 963

1229 AGGAVVLALEGGHDLTAICDASEACVAALLGNRVDPLSEEGWKQKPNLNA 1278
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
964 AGGRIVVLALEGGHDLTAICDASEACVSALLGNELDPLPEKVLQQRPNANA 1013

1279 IRSLEAVIRVHSKCGDGTIAELRLKDLGGTLPHRGQILGFRCPGDLLLV 1328
| | | | | | : | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
1014 VRSMEKVMEIHS..... 1025

1329 WSKI PVSDPGSNGEHPVRYPLSPPDGASRAYQTVAPOQKYWGCMLRA 1378
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
1026 KYWRCLQRTT 1035

1379 SCPDSWVPRVPGADKEEVEAVTALASLSVGIL.AEDRPSEQLVEEEPM 1426
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
1036 STAGRSLIEAQTCENEAAETVTAMASLSVGVKPAEKRPDEEPMEEEPPL 1084

Fig. 8 (b)